

WHAT IS CLAIMED IS:

1. A method for realizing an end-to-end connection between a client layer connected to an RPR (Resilient Packet Ring) network and a client layer connected to an MPLS (Multi Protocol Label Switching) network, wherein
 - 5 - the RPR network and the MPLS network are interconnected through a TLS (Transparent LAN Service) layer.
 2. A method as in claim 1, wherein the RPR network and the MPLS network are further interconnected through an interface consisting in a physical layer like, but not limited to, SDH or SONET, or Ethernet.
 - 10 3. A method as in claim 1, wherein it comprises the following steps:
 - in the direction from RPR to MPLS:
 - received client frames are encapsulated in TLS packets, indicating the final destination;
 - the TLS packets are then encapsulated in RPR packets and passed to the
 - 15 MPLS network;
 - the TLS packets become MPLS packets and travel in the MPLS network until the final destination;
 - in the direction from MPLS to RPR:
 - received client frames are encapsulated in MPLS packets, indicating the LSP
 - 20 (Label Switched Path) that has to be followed up to the final destination;
 - the MPLS packets are switched inside the MPLS network and then passed to the TLS network, becoming TLS packets;
 - the TLS packets are then encapsulated in RPR packets and travel in the RPR network, until the final destination.
 - 25 4. A method as in claim 3, wherein an auxiliary TLS Header is added to said received client frames, obtaining said TLS packets; then an RPR Header is added to said TLS packets, obtaining said RPR packets, and in that said TLS Header contains a channel identifier field, identifying the connection between the client layer connected to the RPR network and the client layer connected to
 - 30 the MPLS network, said TLS Header further containing Reserved bits and Error correction bits.
 5. A method as in claim 4, wherein in the direction from RPR to MPLS, the

TLS header is converted in an MPLS Header by the following steps:

- the TLS channel identifier field is left unchanged and becomes the MPLS Label in the MPLS header;
- TLS Reserved bits are left unchanged and put in the MPLS header;
- 5 - the TLS Error correction bits are removed and a predefined MPLS Time-to-live value is inserted in the MPLS header.

6. A method as in claim 5, wherein in the direction from MPLS to RPR, the MPLS Header is converted in a TLS Header by the following steps:

- the MPLS Label field is left unchanged and becomes the TLS channel identifier field;
- 10 - MPLS Reserved bits are left unchanged and put in the TLS header;
- the MPLS Time-to-live is removed and TLS Error correction bits are inserted in the TLS Header.

7. A method as in claim 1, wherein the client layer is Ethernet or IP.

- 15 8. A telecommunication transmission network for end-to-end connection, where a first and a second client layer exchange information, wherein it comprises:

- an RPR (Resilient Packet Ring) network connected to the first client layer;
- an MPLS (Multi Protocol Label Switching) network connected to the second client layer;
- 20 - a TLS (Transparent LAN Service) layer interconnecting the RPR and the MPLS networks.

9. A telecommunication transmission network as in claim 8, wherein the RPR network and the MPLS network are further interconnected through an interface consisting in a physical layer like SDH or SONET or Ethernet.
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10. An RPR node suitable to implement the method of claim 4, wherein it comprises means for adding the TLS Header to the RPR Header, and means for selecting a port connected to a corresponding port of a node of the MPLS network, on the basis of the channel identifier field value.

- 30 11. An MPLS node suitable to implement the method of claim 6, wherein it comprises means for converting the TLS Header into an MPLS Header and/or vice-versa, and means for selecting a port connected to a corresponding port of a node of the RPR network, on the basis of the Label value.

12. Computer program comprising computer program code means adapted

to perform all the steps of claims 1 to 8 when said program is run on a computer.

13. A computer readable medium having a program recorded thereon, said computer readable medium comprising computer program code means adapted
5 to perform all the steps of claims 1 to 8 when said program is run on a computer.